

## WORK SAFETY REVIEW AND AUTHORIZATION

**Purpose** This Air Quality Group procedure describes the steps to follow to document, review for safety considerations, and obtain approval for non-routine work and work described by a procedure, as required by LIR300-00-01 and LIR300-00-02.

**Scope** This procedure applies to the risk determination of work as required during preparation of new procedures according to ESH-17-022, and the risk determination and authorization of work that is not covered by an existing procedure.

This procedure does **not** address work hazard analysis associated with work inside a facility (see LIR402-10-01, "Hazard Analysis and Control for Facility Work"); such work inside a facility must be addressed in accordance with that LIR and any additional facility requirements.

**In this procedure** This procedure addresses the following major topics:

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**Hazard Control Plan** The hazard evaluation associated with this work is documented in HCP-ESH-17-Office Work.

**Signatures**

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Work authorized by:  Doug Stavert, ESH-17 Group Leader	Date:  <b><u>8/12/99</u></b>

08/20/99

### CONTROLLED DOCUMENT

This copy is uncontrolled if no signatures are present or if the copy number stamp is black. Users are responsible for ensuring they work to the latest approved revision.

## General information about this procedure

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**Attachments** This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Control Plan and Work Authorization	2

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**History of revision** This table lists the revision history and effective dates of this procedure.

Revision	Date	Description of Changes
0	7/8/98	New document.
1	02/12/99	Added block on inclusion of waste resulting from process.
2	8/13/99	Revised to address changes to ESH-17-022 to integrate HCPs into procedures.

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**Who requires training to this procedure?** The following personnel require training before implementing this procedure:

- any group employee assigned to perform a hazard analysis on a procedure or for other work

Annual retraining is required and will be by self-study (“reading”) training.

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**Training method** The training method for this procedure is “**self-study**” (**reading**) and is documented in accordance with the procedure for training (ESH-17-024).

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**Prerequisites** In addition to training to this procedure, the following training is also required prior to performing this procedure:

- ESH-13 training course “Safe Work Practices Training”

## General information, continued

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### Definitions specific to this procedure

Non-routine work: Non-routine work is any work activity that is not covered by an existing procedure, but excludes normal office or computer work, meetings, tours, and other activities that do not involve use of equipment or tools.

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### References

The following documents are referenced in this procedure:

- ESH-17-022, "Preparation, Review, and Approval of Procedures"
  - ESH-17-024, "Personnel Training"
  - ESH-QMP-PP-02, "Waste Management Performance Plan"
  - LIR300-00-01, "Safe Work Practices," Laboratory Implementation Requirements
  - LIR300-00-02, "Documentation of Safe Work Practices," Laboratory Implementation Requirements
  - LIR402-10-01, "Hazard Analysis and Control for Facility Work," Laboratory Implementation Requirements
  - LIR404-00-01, "Waste Acceptance, Characterization, and Certification Program"
  - LIR404-00-05, "Managing Radioactive Waste"
  - LIR404-00-02, "General Waste Management Requirements"
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### Note

Actions specified within this procedure, unless preceded with "should" or "may," are to be considered mandatory guidance (i.e., "shall").

## Prepare Hazard Control Plan

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### Background

Only authorized work is permitted at the Laboratory. The LIR300-00-01 and LIR300-00-02 implement Laboratory requirements for hazard evaluation and mitigation. This procedure is used to document the planning, safety evaluation, and authorization to perform work that is not described in a procedure and the risk determination of work described in new and existing procedures. The process is based on the five steps for safety review:

1. Define the work.
  2. Identify and evaluate hazards.
  3. Develop and implement controls.
  4. Perform work safely.
  5. Provide feedback and continuous improvement.
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### Review of draft procedures

**Procedure preparers** use the Hazard Control Plan form (Attachment 1, but modified to remove the signatures and move item 5 to second page) in this procedure to document the risk determination of a draft procedure. Follow the process described in the remainder of this chapter, with the exception that part 1 may simply reference the procedure that describes the work. Include the completed HCP as Attachment 1 to the procedure (see ESH-17-022).

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### Review of non-routine work

For any work not covered by an existing procedure, other than routine office or computer work, the **employee** or **project leader** proposing the work initiates a Hazard Control Plan and Work Authorization (Attachment 1) by describing the proposed work in part 1. A single form may be used for several employees who will perform the work.

**NOTE:** Work to be performed inside a facility must be addressed in accordance with LIR402-10-01, "Hazard Analysis and Control for Facility Work" and any additional facility-specific requirements for review and approval of work.

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### Identification and numbering of Hazard Control Plans

For Hazard Control Plans that don't apply to a procedure (non-routine work or plans for more than one procedure; e.g., for all procedures with office or computer work), the **preparer** creates an appropriate unique identifier and writes it in the top of part 1 of the Hazard Control Plan form.

## Prepare Hazard Control Plan, continued

<b>Assess safety hazards of planned work</b>	Follow the steps in LIR300-00-01.0, sections 7.1 and 7.2, to determine the potential hazards associated with the work. Describe the hazards in part 2 of the form.
<b>Determine initial risk level</b>	Follow the steps in LIR300-00-01.0, section 7.2, to determine the <i>initial risk level</i> of the various processes proposed. If any of these <i>initial</i> risk levels are “medium” or “high,” consult with ES&H subject matter experts and make appropriate process changes to reduce risk to a maximum of “medium.”
<b>Determine if other reviews necessary</b>	Consult LIR300-00-02 to determine whether a review by subject matter experts in appropriate ES&H groups is required. Such a review is required if the work includes one of the listed hazards. Group ESH-5 coordinates these reviews. If such a review is needed, ensure that required safety approvals or forms (e.g., a Special Work Permit or Radiation Work Permit) are prepared and receive appropriate reviews and approvals. List on the form any such special work permit requirements.
<b>Add work controls</b>	In part 3 of the form, describe the controls, such as equipment, work steps, or other actions to be used to mitigate or reduce the safety hazards. Describe the emergency actions to follow, if appropriate. Document any required consultations with ES&H subject matter experts.
<b>Determine residual risk level</b>	Determine the <i>residual risk level</i> (i.e., after any controls have been added to lower the risk level; see section 7.3.3 in LIR300-00-01.0) of the work to be performed. Document the determination of the risk level in part 3 of the form.

## Prepare Hazard Control Plan, continued

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### Determine if waste is generated

Determine if any waste is generated as a result of the work process. Include wastes for which a waste profile form must be prepared and those wastes that are recycled. If questions arise, confer with the waste management coordinator for the facility. For more information, see ESH-QMP-PP-02, LIR404-00-01, LIR404-00-02, and LIR404-00-05. Document the waste handling steps in part 7 of the form and, if a procedure is applicable, ensure the required steps are incorporated into the procedure for the process.

**NOTE:** If a process generates radioactive or hazardous waste for which a waste profile form must be prepared, the individuals (waste generators) performing the process must receive waste generator training. If the waste is recycled, waste generator training is not required.

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### Review safety hazards with group leader or group Safety Committee

The **preparer** of the Hazard Control Plan and the **group leader** or **safety committee** meet to discuss the proposed work and review the form. If the residual risk level is “medium,” obtain approval by the Division Director in place of (or in addition to) the group leader.

For non-routine work (i.e., work not described in a procedure), the **employee(s)** who will perform the work signs the form. This constitutes “training” to the approved work process and authorizes the worker to do the work in accordance with the Hazard Control Plan. (**NOTE:** For work performed according to a procedure, training to the procedure constitutes the “authorization.”)

The **group leader** or **safety officer** signs the form and the work is then authorized. The authorization of the work is valid for one year from the date of signature, unless rescinded by the group leader, after which a new review, pursuant to the chapter *Annual review of Hazard Control Plans* in this procedure, is required.

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### Distributing the Hazard Control Plan

After the Hazard Control Plan form is complete and all required signatures obtained, either include the plan as attachment 1 to the applicable procedure, or (for non-routine work) forward the original to the group records coordinator. Forward a copy to any facility or other organization where the work is performed.

## Prepare Hazard Control Plan, continued

### Rescinding a Hazard Control Plan

Workers following a procedure or performing non-routine work to a Hazard Control Plan are expected to notify the group leader, project leader, or other supervisors if they identify new hazards or needed improvements to the work process. If changes are necessary to incorporate new concerns or improvements, the **group leader** or **safety officer** may rescind the existing Hazard Control Plan, stop the work, and initiate a new Hazard Control Plan. If the Hazard Control Plan is for a procedure, initiate a procedure revision in accordance with ESH-17-022.

### Summary

The following table summarizes the responsibilities within the steps above.

Who	What
<b>Preparer of Hazard Control Plan</b>	<ul style="list-style-type: none"> <li>• Document the proposed work and safety issues on the Hazard Control Plan and Work Authorization (Attachment 1).</li> <li>• Obtain any Lab-required safety reviews and permits.</li> <li>• Describe on the form the safety mitigation measures to be used before and during the work.</li> <li>• List the wastes generated as a result of the work and describe the steps to properly dispose or recycle the waste.</li> <li>• Forward the form to the group leader or safety officer for review.</li> <li>• After the group leader or safety officer have reviewed the form and made any revisions, discuss the work and safety issues with the group leader or safety officer and sign the form.</li> <li>• If the plan is for a procedure, include the plan as Attachment 1 of the procedure.</li> </ul>
<b>Group leader or group safety officer</b>	<ul style="list-style-type: none"> <li>• Review the proposed work, safety hazards, and mitigation measures as described on the form and revise as deemed necessary.</li> <li>• When satisfied that safety concerns have been adequately addressed, discuss the work and safety issues with the employee and sign the form. Work with a residual risk of <i>medium</i> requires Division Director approval.</li> </ul>

## Annual review of Hazard Control Plans

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### Annual review of existing hazard control plans

**Project leaders** initiate a review of existing Hazard Control Plans that are one year old. Hazard Control Plans that are part of a procedure will be reviewed when the procedure receives its annual review. Carefully and thoroughly review each Hazard Control Plan by following the same steps, given in the previous chapter, for creating a Hazard Control Plan.

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### If changes to Hazard Control Plan are needed

If changes are necessary:

- If the plan documents the hazards in a procedure, initiate a revision of the appropriate procedure (ESH-17-022).
  - Follow the steps in this procedure to evaluate the hazards and document the hazard review on a new Hazard Control Plan for the new procedure revision.
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### If no changes to Hazard Control Plan are needed

If no changes are necessary:

- If the plan documents the hazards in a procedure, file appropriate records (e.g., memo to file) to document the review.
- If the plan is for non-routine work, make a note above preparer's signature "Annual review: no changes" and sign and date above the preparer's name and signature.
- If the plan is for non-routine work, obtain the group leader's or safety officer's signature above the previous signature.

If the plan is for non-routine work, this re-signing of the Hazard Control Plan may be performed only TWICE; after the third year, a new Hazard Control Plan form must be created.



## Records resulting from this procedure

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### Records

The following record is generated as a result of this procedure and is to be submitted **within one week of completion** as a record to the records coordinator:

- Hazard Control Plan and Work Authorization form (Attachment 1) for non-routine work

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- Hazard Control Plan form (similar to Attachment 1) as first attachment to applicable procedure
- Documentation of annual review of HCPs (e.g., memo to file)



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**HAZARD CONTROL PLAN AND WORK AUTHORIZATION** Page 1 of \_\_\_\_

This form is from ESH-17-035

1. Describe the work to be performed (use continuation page if needed) or give procedure number, revision number, and title.

HCP-ESH-17-xxx, Rx      Title:

2. Describe potential hazards associated with the work (use continuation page if needed).

**SAMPLE**

3. For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, as determined according to LIR300-00-01.0, section 7.2)

Overall *initial* risk: ☐ Minimal ☐ Low ☐ Medium ☐ High

4. Applicable Laboratory, facility, or activity operational requirements directly related to the work:

☐ None    ☐ List:      Work Permits required? ☐ No    ☐ List:

5. Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

**SAMPLE**

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HCP-ESH-17-xxx, Rx

## HAZARD CONTROL PLAN AND WORK AUTHORIZATION

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This form is from ESH-17-035

6. Knowledge, skills, abilities, and training necessary to safely perform this work (check one or both):

- ☐ Group-level orientation (per ESH-17-032) and training to applicable procedure.  
☐ Other → Describe:

# SAMPLE

7. Any wastes and/or residual materials? (check one) ☐ None ☐ List:

8. Considering the administrative and engineering controls to be used, the *residual* risk level (as determined according to LIR300-00-01.0, section 7.3.3) is (check one):

- ☐ Minimal ☐ Low ☐ Medium (requires approval by Division Director)

9. Emergency actions to take in event of control failures or abnormal operation (check one):

- ☐ None ☐ List:

After this form is approved, perform the work safely. Identify opportunities for improvements in safety and report these to the safety officer or group leader.

\_\_\_\_\_  
Preparer(s) signature(s)                      Name(s) (print)                      /Position                      Date

I have reviewed the safety of this proposed work with the group safety officer and I commit to follow safe practices when performing this work.

\_\_\_\_\_  
Employee signature                      Name (print)                      Date

\_\_\_\_\_  
Additional employee signature (optional)                      Name (print)                      Date

\_\_\_\_\_  
Additional employee signature (optional)                      Name (print)                      Date

### Group leader or safety officer review.

I have reviewed the proposed work with 1) the preparer(s) and 2) employees who will perform the work and I believe the hazards and safety concerns have been adequately addressed. The work as described above is hereby authorized. This authorization expires one year after the date below.

\_\_\_\_\_  
Group leader or safety officer signature                      Name (print)                      Date

This plan will be revised according to ESH-17-035. Group leader or safety officer: After completion, submit to ESH-17 Records Coord.